

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PU040049	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2004/004702	International filing date (day/month/year) 19/02/2004	(Earliest) Priority Date (day/month/year)	
Applicant THOMSON LICENSING S.A.			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

METHOD AND APPARATUS FOR CARRIER RECOVERY IN A COMMUNICATIONS SYSTEM

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the **drawings** to be published with the abstract is Figure No. 7

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☒ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

National Application No
PCT/US2004/004702

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L27/00 H04L27/34 H04B7/185

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 02/089371 A (HUGHES ELECTRONICS CORP) 7 November 2002 (2002-11-07) page 5, paragraph 3 page 8, paragraph 2 - paragraph 4; figure 4B	1-35
Y	WO 03/101034 A (MATSUMOTO WATARU ; MITSUBISHI ELECTRIC CORP (JP)) 4 December 2003 (2003-12-04) abstract; figure 1	1-35
Y	US 2003/123595 A1 (GOLSHAN ALI R ET AL) 3 July 2003 (2003-07-03) paragraph '0044!; figure 3	1-35
Y	EP 1 313 279 A (CIT ALCATEL) 21 May 2003 (2003-05-21) paragraph '0020! - paragraph '0033!	1-35
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

18 October 2004

Date of mailing of the International search report

22/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Koukourlis, S

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/004702

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/067779 A1 (JONES CHRISTOPHER R ET AL) 6 June 2002 (2002-06-06) paragraph '0020!; figure 3 -----	1-35

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2004/004702

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02089371	A	07-11-2002	US 2002181604 A1	05-12-2002
			CA 2442400 A1	07-11-2002
			EP 1382141 A1	21-01-2004
			NO 20026115 A	19-12-2002
			WO 02089371 A1	07-11-2002
			WO 2004040806 A1	13-05-2004
			WO 2004040403 A2	13-05-2004
			WO 2004040924 A1	13-05-2004
			WO 2004040897 A2	13-05-2004
			WO 2004040406 A2	13-05-2004
			WO 2004040820 A2	13-05-2004
			US 2002158619 A1	31-10-2002
			US 2003219069 A1	27-11-2003
			US 2004184521 A1	23-09-2004
			US 2004141474 A1	22-07-2004
			US 2004141575 A1	22-07-2004
WO 03101034	A	04-12-2003	JP 2003348064 A	05-12-2003
			WO 03101034 A1	04-12-2003
US 2003123595	A1	03-07-2003	NONE	
EP 1313279	A	21-05-2003	EP 1313279 A1	21-05-2003
US 2002067779	A1	06-06-2002	AU 4515801 A	18-06-2001
			EP 1234420 A2	28-08-2002
			WO 0143384 A2	14-06-2001